

REMARKS

During the telephone conference with Examiner Monshipouri on July 19, 2010, the Examiner indicated that most of the claims were in condition for allowance but requested a few additional amendments and remarks to address some last remaining issues. Applicants respond accordingly.

Claim 48

The Examiner requested clarification between a "mutant form" of avidin and a "variant" of avidin. Currently amended claim 48 deletes the "mutant form" of avidin. A "variant" form of avidin is defined in the specification, for example, at page 10, lines 16-21.

The Examiner also requested further clarification to "chicken avidin-related protein (AVR)." These AVR proteins have been broadly described in the literature and are well known to those of ordinary skill in the art. The specification provides additional support for chicken AVR with reference to WO2004/018509, which details AVR proteins (see, page 10, lines 22-23).

Claim 54

The Examiner requested a showing of support in the specification for mutations to "any amino acid." Claim 54 has been canceled.

Claim 55

The Examiner requested additional clarification to the specific mutations recited in claim 55, e.g., Y33H, I117C, etc. Currently amended claim 55 clarifies that these mutations refer to SEQ ID NO: 1. Additional clarification of these mutations can be found in the specification, for example, in the first paragraph of Example 6.

REFERENCES

The Examiner indicated that five documents cited in the International Search Report and listed on form PTO-1449 in the IDS dated August 18, 2006 had not been forwarded from the International Search Authority. Applicants provide herein courtesy copies of the five documents for the Examiner's consideration.

CONCLUSION

Entry of the above amendments is earnestly solicited. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

/H. James Voeller/
H. James Voeller, Reg. No. 48,015
209 Madison Street, Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

HJV/fb

APPENDIX:

The Appendix includes the following item(s):

- "Thermodynamic and structural consequences of flexible loop deletion by circular permutation in the streptavidin-biotin system," Chuv. et al. , Protein Science, Vol. 7, No. 4, April 1988, pp. 848-859, XP002316238.
- "Rotational design of an active avidin monomer", Laitinen et al., Journal of Biological Chemistry, Vol. 278, No. 6, Feb. 7, 2003, pp. 4010-4014, XP002316239.
- "Enhancing the thermal stability of avidin," Nordlund et al., Journal of Biological Chemistry, Vol. 278, No. 4, January 24, 2003, pp. 2479-2483, XP002973647.
- "Chicken avidin-related proteins show altered biotin-binding and physico-chemical properties as compared with avidin," Laitinen et al., Biochemical Journal, Vol. 363, 2002, pp. 609-617, XP002973648.
- "Construction of a dual chain pseudotetrameric chicken avidin by combining two circularly permuted Avidins," Nordlund et al., Journal of Biological Chemistry, Vol. 279, No. 35, August 27, 2004, pp. 36715-36719, XP002316240.